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ABSTRACT

An approach to the study of drug sub-culture groups and a model for predictive research in the identification and isolation of heroin addicts are developed in this thesis. The basic methodologies employed are the linguistic methods of Kenneth Pike and Claude Levi-Strauss for use in the analysis of social phenomena. Communicative mechanisms by which members of a group of addicts will establish and maintain the territorial integrity of their social subsystems are isolated and identified by the use of sound and visual recording devices in a controlled experiment attempting to examine the relationship of behavior patterns to the communicational patterns and interactional dynamics of the subjects. The use of audio-visual devices permits the investigator to repeatedly examine segments of behavior. In the study of drug addiction it is necessary to examine the social and cultural matrices from which the pathology springs and the communicative networks, channels, and patterns which serve it and support it. (Author/SJM)

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VIDEOTAPE RECORDING OF NARCOTIC ADDICTS IN GROUP THERAPY: THE ANALYSIS OF COMMUNICATIONAL AND INTERACTIVE BEHAVIOR.

IRV SOLOWAY

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IRV SOLOWAY

FOR THE HAT

The proceeding material was gathered while the author was employed as Research Associate in Anthropology in the Addiction Research Section of the Narcotic Addiction Rehabilitation Program (N.A.R.P.). N.A.R.P. is part of the West Philadelphia Community Mental Health Consortium, a comprehensive mental health facility serving the citizens of West Philadelphia. The author has been employed in the above capacity since 1 June, 1970. As a member of the research staff he has full access to all clinical and psychiatric data and socio-epidemiological material relating to the patient population at the Narcotic Rehabilitation Program being treated for chronic opiate dependency.

I must gratefully acknowledge the cooperation of Arthur D. Moffett, M.S.W., Director of Research and Evaluation at the Narcotic Addiction Rehabilitation Program for his consistent support and advice throughout the course of his project, Mr. Charles Martucci, M.S.W., Director of Training at the West Philadelphia Community Mental Health Consortium for providing the video-tape equipment and for technical advice in its use. Drs. Jay Ruby and Denise O'Brien must be acknowledged for their enthusiasm, support, and remarkable patience during the entire process of preparing this thesis. I would be remiss in recognizing my obligations if I did not sincerely thank the four persons who were the subjects of this study. For obvious reasons they must remain anonymous. They are but representative of a group of people little understood, desperately feared, and in urgent need of serious study.

If the following report has any validity it is due to the contribution of the persons acknowledged. I am, however, solely responsible for any inaccuracies or deficiencies in the text of this thesis.

Irving H. Soloway

Philadelphia General Hospital

1971

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"...la verite n'a pas besoin d'etre dite pour etre manifestee..."*

Proust, M. A La Recherche du Temps Perdu. II Le Cote de Guermantes. p 66

*"...the truth need not be uttered to be made apparent..."

INTRODUCTION

The following thesis is an attempt to develop an approach to the study of those groups in which full-scale participant-observation is hindered by the very nature of the group being studied, and to develop a method of predictive research for the examination of these types of groups, in this particular case heroin addicts.

The plan of the thesis is as follows. Section I deals with the nature of predictive research in the social sciences and proposes an adaptation of the linguistic model to be used in anthropological predictive studies. Section II is a general examination and criticism of the term "drug sub-culture" as the term has been defined and used by non-anthropologist social scientists. Section III discusses a communication-oriented view of culture and develops the idea that "deviant" behavior is a state of faulty communication networks. The section concludes with a proposal to develop a method which isolates the emic level of the communication code of a group, such as the "drug sub-culture" and then isolating within that code those elements which are unique to the members of the group under consideration. Section IV is a review of the study of non-linguistic channels of communication. Section V briefly considers the problems of working with a "deviant" population and proposes a method of study in which the observor creates a simulated situation. Section VI describes the population of the study and discusses the video-taping process and the role of visual recording technology in anthropological research. Sections VII and VIII contain descriptions of the episodes studied and analyses of those episodes on a variety of behavioral levels: geographic; postural; kinesic; contextual; and social. Section IX,

the conclusion, is a general summation of the entire thesis and discusses the place of anthropology in the study of drug addiction. The conclusion also proposes a series of projects which would contribute to the isolation and identification of the cognitive orientation, the "world view" of the urban opiate addict.

SECTION I

> "Behavioral scientists can be roughly divided into two groups: those who aspire to the scientific status of physical scientists and, in consequence, tend to select research problems that yield to the analytic method; and those who are moved by a need to 'understand man'. The former stand in danger of trivializing the study of man, ...the latter stand in danger of obscuring the study of man in free-wheeling speculations without sufficient anchorages in facts or testable hypotheses."
>
> (Rapaport: 1968, XXII.)

In an article entitled "Language and the Analysis of Social Laws."(1967, 54-63) Claude Levi-Strauss discusses the problems surrounding the nature of predictive research in the social sciences. His frame of reference is the work of the cybernetician Norbert Wiener (1954) in which Wiener criticizes the adoption by the social sciences of the natural scientist's mathematical models of prediction. Wiener essentially has two objections to the use of mathematical models in the social sciences. In the first place, the very nature of the objects to be studied in the social sciences make inevitable the fact that the object of study is affected by the intervention of the observor (Levi-Strauss: 1967, 54).

> "...even the best-intentioned observation is a cultural performance and, explicitly channelized, will tend toward moral perception, cognition, and rationalization."
>
> (Birdwhistell: 1959 (a), 9).

Secondly, the material to be examined in the social sciences

> "...are defined within our own sphere of interests; they concern questions of the life, education, career and death of individuals. Therefore the statisical runs available for the study of a given phenomenon are always far too short to lay the foundation of a valid induction." (Levi-Strauss: 1967, 54-55).

Levi-Strauss, then, suggests that if the social sciences are ever to reach a level of predictive reliability comparable to that of the natural sciences a technique must be developed in which the data are moved beyond the conscious control of the observor and to the point of refinement in which a statistical run long enough for expression in mathematical functions is generated.

> "...unless we can develop a methodology which permits an objective evaluation, the shape of the events which we abstract from the external environment will undoubtedly have the shape of the biasing screen of our own cultural experience." (Birdwhistell: 1959 (a), 8-9).

Such a technique, such a model, for predictive research in the social sciences exists within the methodology employed by structural and descriptive linguistics. The central concept underlying the linguistic model is that language exists only as a collective construct (Levi-Strauss:1967,55) in which the components on the most basic level, the true building blocks of the language, exist on the phonemic level. The phonemic level lies beyond the conscious control of both informant and observor-investigator. The phonemic system of any language exists as a stable system of bound behavioral units at a level of abstraction capable of being examined within the parameters of Wiener's criteria for predictive modelling. The observor cannot

influence, cannot by his very presence alter the nature or frequency of data extant at the phonemic level, and language abstractable to the phonemic dimension certainly fulfills the second requirement of a long enough statistical run to achieve true randomness in the abstracted sample.

The ability of linguistics to abstract its subject matter to the level of elementary and discrete units provides the social scientist with a methodological model through which he may potentially structure, categorize, and predict areas of human behavior which lie beyond the linguistic matrix.

> "Language is probably the only cultural system sufficiently analyzed to permit separation of socially from individually patterned behavior. The exhaustive description of language as a system provides a source of data and a model for the investigation of other systems contributing to the communicative process."
>
> (Birdwhistell: 1959 (b), 5-6).

Kenneth L. Pike, in a seminal article entitled "Towards a Theory of the Structure of Human Behavior." (1956) states that the sociologist or anthropologist can, through an extension of the linguistic model, deal with any area of human behavior with the same degree of consistency and predictability that linguists enjoy with language if the behavior in question is reduced to its "significant units". The level of significance suggested by Pike is the "emic" level of abstraction. Pike proposes that a unitary theory of human behavior can be realized if all behavior, observable behavior, is analyzed at the level of the "...discrete behavioral entity..." (Pike:1956), i.e. the "emic" level.

The utilization of this type of model would fulfill the criteria of Levi-Strauss and Norbert Wiener for predictive mathematical modelling in the social sciences. Indeed, if the investigator can reduce his data to discrete basic elements which are analogs of phonemes, i.e. the building blocks of the collective construct of the social relationship under study; these discrete elements will be at a level beyond conscious control yet will still exist as culturally-specific behavioral entities; and furthermore, if the investigator can both describe and duplicate his method of data reduction, then a cross-cultural comparison between areas of analogous behavior as well as predictability within those behavioral analogs becomes quite feasible.

> '...even the most motivated observor who abstracts from the behavioral stream remains an artist until he can describe the operations whereby he abstracts his units .... If we are to test his operations and test the significance he assigns to each piece of data, he must give us explicit instructions which make it possible for us to duplicate his operations. And this is precisely what linguistics and kinesics are designed to do. These are methods whereby the infracommunicational systems can be explicitly studied and compared and whereby the events isolated through their methodologies can be put into perspective." (Birdwhistell: 1959 (a), 9).

Structural and descriptive linguistics have achieved a level of objectivity and predictive reliability through the utilization of a model which revolves about the concept of the <u>phoneme</u>. Pike proposes that all areas of human behavior can be reduced to levels analogous to the phonemic level. He labels this general level of abstraction the

emic level and in non-linguistic areas claims the existence of "behavioremes", which are analogs of the phoneme, i.e. abstractable building blocks of the collective construct of human behavior.

The use of data at the emic level for predictive modelling in anthropology was demonstrated in a non-linguistic area through Kroeber's study of historical trends in the length of women's dresses in which Kroeber measured "...some basic relationships between the various elements of costume..." (Levi-Strauss: 1967,58) at different periods of time, correlating those costume change factors with periods of war and peace, and expressing those relationships mathematically and predictably. This very cursory example of Kroeber's work is merely meant to demonstrate that a reduction of data to a level beyond the control of the observer over a long enough period of time to generate meaningful statistical samples enables the social scientist to move into the sphere of true predictive research with a methodology conforming to the natural scientist's criteria for establishment of a valid and acceptable data base.

SECTION II

In the literature dealing with the causes and nature of drug addiction in contemporary America the reader is continually exposed to the term "drug sub-culture". However "drug sub-culture" has never been defined in truly meaningful terms. It hasn't been defined in terms of the structural and processual configurations of the drug abusing population itself. A cultural system is an organic, albeit not a closed, unit and must be defined in terms of its own dynamics and the forces operating between it and the culture or super-culture within which it exists. It must be defined in terms of its behavioral limits. It must be defined through an identification and isolation of those discrete behavioral elements which form the building blocks shaping the collective construct of the particular style of life being investigated. The identification, isolation, and definition of the "drug sub-culture" must be expressed in terms consistent with the elements peculiar to the behavioral schemata of the population to be defined.

> "...the emic analysis of the emic units of human behavior must analyze that behavior in reference to the manner in which native participants in that behavior react to their own behavior and to the behavior of their colleagues." (Pike: 1956)

The reduction of the behavior of the drug-abusing population to the emic level would fulfill two requirements for effective anthropological research. First, such a reduction would allow the investigator to put the data at a level at which comparison to analogous "deviant" situations in other social groups would become feasible. In the

second place the reduction of such data to the emic level would hopefully allow the investigator to define the population in question in its own terms. Thirdly such an abstraction of emic level data would enable the investigator to engage in valid predictive modelling.

What we have witnessed to date in the sociological study of drug addiction has been a tendency, consistent with our particularly American ritual of quantification, to count the noses, skin colors and educational levels of drug addicts. There has been study upon study on the demographic characteristics of addict populations, study upon study on the various means of attempting to treat and rehabilitate the drug dependent person, and study upon study on the drug use history of the members of the addict population. All of the foregoing types of quantitative, descriptive studies are highly relevant toward gaining an insight into the statistical and demographic dimensions of the known drug dependent or drug abusing sectors of the population. However, we must remain aware that

> "Organized social activity is finally dependent upon the attributes of its individual members, but social action and organization can scarcely be comprehended by the most complete summation of individual potentialities."
> (a)
> (Birdwhistell:1968,4)

If we are ever to appreciate the implications of such a concept as "drug sub-culture" and use such a concept, we must first, before any other step is taken, verify its existence as an actual sub-culture, keeping in mind the very real danger of abstracting a portion of the population who share certain traits and then viewing that population as culturally abstractable from the population from which it was drawn.

(Birdwhistell:1968(a)23-24). The investigator must proceed by first verifying or denying the drug abusing population the status of a subcultural unit. The identification process will have validity only if the parameters of the definition of the sub-culture are expressions of behavioral processes generic to the cultural milieu of the population under study. In other words, define the group within its own parameters of acceptable behavior. Allow the behavioral model of the group to define the subculture.

A real hazard implicit in applying the term "sub-culture" to groups mathematically abstracted from the general population is that the investigator may well neglect the reality that such abstractions subdivide a cultural unit. The investigator, by so doing, is guilty of ripping from its natural environment, from its functioning context, a segment of a population and this device of abstracting populations out of their natural milieux erases any connection that the abstracted population might have had with the real world.

> "By however elegant mathematics, counting intuitively derived heuristic forms remains an exercise until such forms can be demonstrated to have counterparts in nature. 'Nature' here refers to the behavioral universe of social interaction in contrast to the meta-universe of the analyst."(Birdwhistell: 1968 (a), 25).

Given the above limitations of quantitative research in the social sciences it seems rather obvious that the bulk of sociological and psychological studies in drug addiction have categorically failed to identify the behavioral limits of the drug sub-culture. Indeed, the literature has even failed to illustrate the existence of a

drug sub-culture. The majority of investigations into the behavioral aspects pf drug addiction have only produced redundant, involuted, and by this time meaningless demographic descriptions. They have done nothing except to describe populations in statistical terms. At this point it seems quite evident that in order to comprehend the structure and processes shaping the "drug sub-culture" the investigator's point of departure must proceed from an attempt to isolate those discrete behavioral entities peculiar to the population under study, if such unique behavioral units can be assigned to such a population. This process will isolate the population, the boundaries being behavioral entities native to the population.

SECTION III

"...society can only be understood through the study of the messages and communication facilities which belong to it..."(Wiener:1968,31)

If culture is viewed as superpersonal patterns of learned behavior and shared experience within a particular group, then communication and the communicative processes of the group in question can be seen as the mechanism which allows the predictable patterning of behavior and the sharing of experience within the group.

"Communication...includes all behaviors by which a group forms, sustains, mediates, corrects, and integrates its relationships." (Scheflen: 1964, 318).

The adaptational imperative of man, the unique and defining characteristic of homo sapiens, is his possession of culture. "Culture" implies sociality and in order for a social unit to exist at all as an ongoing group, the members of that group must be able to interact and must share "...a sufficient portion of a common code to engage productively at all."(Birdwhistell:1970, 9).

Man, in short, must communicate in order to be man. Our humanity and our place as functioning members of a social group is entirely dependent upon our ability to transmit and receive messages/intelligible which are and meaningful to other members of the group.

"For at least as long as man has been literate he has recognized that human existence is predicated upon shared experience - as a conjoint possession of a living membership and as a continuous stream passing generation through generation. That man is a tradition-building and transmitting animal is basic to any philosophy which

transcends the contemplation of single acts to the comprehension of mankind." (Birdwhistell:1969, (a) 4).

Communication provides the system "...through which various members of the society inter-relate with more or less efficiency and facility." (Birdwhistell: 1959, 2-3). Through communication comes a codification of information about behavior and from this codification there necessarily follows predictability. Predicability produces the potential for social interdependence and inter-action. Predicability, then, becomes the essence of any communication system.

> "...reliable symbolization...must be maintained if that society is not to be destroyed by accumulating discrepancy and misinformation."(Birdwhistell: 1968 (b) 4-5).

Each society defines normality in terms of the individual member's ability to function within the total culturally-defined communication network. Pathologies, whether defined as schizophrenia by a psychiatrist or as possession of spirits by a shaman, are manifested by the apparent inability or unwillingness on the part of the individual labelled as "pathological" to effectively communicate within the parameters set by the group to be "normal" patterns of communication. What takes place, then, is an "interactional failure" between "normal" society and the pathological individual or population. (Birdwhistell:1959 (a), 3).

Mental Health is a state of efficient communicative processes between the individual and those with whom he interacts.

> "The ability to mutually correct the meaning of messages and to mutually influence each other's behavior to each other's satisfaction is the result of successful communication.

This is the only criterion we possess, and if we achieve such a state, it indicates mental health."

(Ruesch and Bateson: 1968, 87).

When breakdown in the communication process takes place the individual or the group in which the breakdown occurs is labelled mentally ill or deviant. A culture or a social group will define deviance in terms of its own failure to incorporate an individual or a group into those patterns of communication perceived by the culture as being normal, appropriate, intelligible. (Wilkins: 1968,423).

Recognizing, then, that psychopathology or social pathology may be defined in communicational terms, it follows that in order to isolate and identify the dynamics and structure of a particular pathology it becomes necessary to examine the communicational patterns of the designated "deviant" individual or population vis-a-vis the communicational patterns and processes of the larger population which has labelled the designated behavior patterns "deviant". In other words we should first examine the communicational system of the culture at large and then attempt to locate, within the communicational system of the designated patient, those areas of dysfunction, inappropriate response, etc. which hinder effective interaction between the pathological and the "normal" populations. We should seek to isolate those behavioral units which inhibit the "deviant" from successful dialogue within his cultural milieu.

"...by studying the systematic and patterned behavior by means of which men engage in communication with each other, we may be able to understand how these processes order, set limits upon, or at times, determine the interactive process"(Birdwhistell:1963(a) 4).

In order to examine the communicative processes it becomes necessary, if that examination is to operate at an objective and predictable level, to reduce the elements of communicative behavior to objective levels of reality. This implies "...a reduction of the data to significant units."(Birdwhistell: 1959 (a) 10). It is at this level - the level of isolation, abstraction, and codification - that anthropology, using the methodology employed by the linguists and suggested by Pike for utilization in the investigation of all human behavior, becomes relevant. If the emic level of a particular pathology, in this case a social pathology (drug addiction) could be definitively isolated - it might then become possible to prove once and for all the existence of a "drug sub-culture". Such an analysis would allow the investigator to make true behavioral comparisons between the population in general and that sector of the population labelled as deviant because of their habituation to socially unacceptable chemical euphorics. Such an analysis would also conform to the requirements for predictive mathematical modelling in the social sciences set forth by Levi-Strauss and Norbert Wiener in that the reduction of data to the emic level would allow objectivity and statistical runs long enough to generate predictive models (cf. ppl-6).

SECTION IV

Charles Darwin's work in the theory of evolution have, until quite recently, overshadowed another area of inquiry investigated by him. The Expression of Emotions in Man and Animals(1373) is a seminal statement dealing with the hierarchical nature of animal and human communication and deals essentially with the expression of emotion among various species through non-verbal channels. Darwin, of course, stressed the adaptational value of the communication:

> "...both man and animals had to communicate emotions in order for other men and animals to adapt to their behavior. That communication was an adaptational minimum for either animals or men was seen by Darwin."(Birdwhistell: 1965: (a)314).

Marcel Mauss, in "Les Techniques du Corps" (1936), discusses the notion that bodily responses are probably culturally conditioned and calls for an investigation of bodily responses on a cross-cultural and intra-cultural basis.

In The Mind of Primitive Man (1911) Boas states that

> "The motor habits of groups of people are culturally determined and not due to heredity."

In recent years several investigators have demonstrated that human communication exists systematically and simultaneously on several behavioral levels and is transmitted along several sensory channels. It has also been shown that the entire communicational network of any given individual is culturally conditioned and is learned by the individual as a member of his culture.

Over the last two decades - beginning with the work of Ray L. Birdwhistell - investigators into the nature of human communication

patterns and processes have demonstrated that the full scope of human communication can only be appreciated if one moves beyond the lexically-oriented model of communication.

Starting with Birdwhistell, a generation of anthropologists and communication theoreticians have formally rejected the rather ethnocentric notion of Western man that the word, the speech stream, is the sole and central channel of communication among men. Without denying language as being "...prerequisite, even central, to man as the inventor and bearer of civilization..."(Birdwhistell:1965 (b)4), recent investigations have demonstrated that other channels of communication occur simultaneously with activity in the lexical channel, and that all of these channels of communication are interdependent in terms of involving the participants in ongoing, predictable behavior. Indeed, Birdwhistell has maintained that probably no more than 30% to 35% of the social meaning of a conversation or an interaction is carried by the words. (Birdwhistell: 1959 (b) 25). Multi-channel redundancy, or the reinforcement and elaboration of a basic message along various channels is seen as an adaptive mechanism. If Birdwhistell's figure of 30% to 35% is correct then the absolute necessity of multi-channel reinforcement as an adaptational and survival minimum becomes quite obvious.

> "...it is...impossible for us to conceive of either complex communication or civilization in a universe which had access to but one aspect of a single sensory channel. We simply must learn, know and share too much to put it into words." (Birdwhistell:1968(a), 56).

Indeed, the very survival of man as a species can be seen as

directly dependent upon the ability of members of one group to communicate with members of another group and here again a multi-channel system of communication

> "...makes it possible for a far wider range within the population to become part of and to contribute to the conventional undertakings of the community than if we were a species with only a single channel lexical storehouse."
> (Birdwhistell:1968(a), 45).

With the acceptance of communication being a multi-channel affair

> "...the concept of language was enlarged to include all communicational events originating in a human Body."
> (Bateson:1958,97)

Investigators began an examination of all possible channels of communication. They utilized the linguistic model, and through this emic model of human behavior anthropology is moving towards a point of understanding the truly integrated nature of culture as a symbolic system of interdependent message units, channels, and transmitter-receivers.

The first systematic investigation of non-verbal communication was the work of Ray Birdwhistell in the area of kinesics which is "...the systematic study of those patterned and learned aspects of body motion which can be demonstrated to have communicational value." (Birdwhistell:1963(b),1).

With the publication of Introduction to Kinesics(1952), Birdwhistell demonstrated that it was possible to codify body motion behavior and in subsequent works he has demonstrated that one could collate and articulate the observed body motion behavior with the

ongoing verbal behavior. His notational scheme for the recording of kinesic behavior is an analog of the linguist's hierarchical ordering of verbal behavior.

LINGUISTICS		KINESICS	
sound		muscular and skeletal shift	
Phone:Allophone		Kine: Allokine	
Phoneme		?Kineme?	
Morph:Allomorph			
Morpheme	Word	Kinemorph	Act
	Construction		Action
	Sentence		Action
Utterance in Context		Action in Context	

(Birdwhistell:1952,22) The question marks surrounding the "kineme" refer to the 1952 edition of the book when the kineme had not been formally abstracted by Birdwhistell, but the presence of which was sensed by Birdwhistell.

Through the use of slow-motion sound film Birdwhistell analyzes his data by correlating the spoken stream with the kinesic action taking place. He attempts to demonstrate that messages are transmitted and received through channels other than the verbal.

Another area of non-linguistic communication to be investigated has been the examination of the uses of space as a culturally-conditioned means of communication.

> "Levi-Strauss has suggested that space use may be related to the formal properties of other aspects of social life. He is interested in correlations between spatial configurations and social organization."(Schaefer:1970, 282-283).

Edward Hall(1959,1963,1966) has developed a model for proxemic behavior to investigate the use of space on a cross-cultural basis.

> "...people from different cultures interacting with each other could not be counted on to attach identical meanings to the same or similar measured distances between them. (Hall:1963, 1003).

Hall has followed Birdwhistell's lead and gone to the linguistic model to devise a system for the notation of proxemic behavior (Hall: 1963) in which a given individual's use of space can be objectively charted. Through the utilization of this model and this notation system cross-cultural comparisons and predictive models can be generated.

In the area of ethnomusicology Alan Lomax has developed two models: the cantometric and the choreometric (Lomax: 1971, 22-27). The choreometric model seeks to reduce folk dance styles of various cultures to a common scheme of notation so that cross-cultural comparison of folk-dance and other ritualized movement styles becomes possible. The cantometric model is analogous to the choreometric approach, but is applied to folk song styles.

The models used by Birdwhistell, Hall, and Lomax all proceed from the theoretical assumptions of descriptive linguistics, i.e., reduce the data to the level of significant behavioral entities and it then becomes possible to generate cross-cultural comparisons of behavioral analogs as well as to investigate the relations of intra-cultural phenomena. Also, such a reduction to significant levels, to the emic level, potentiates predictive research through mathematically functioning models.

An excellent example of the use of the multi-channel approach in communicational analysis is the work done by Gregory Bateson in the isolation and analysis of the "double-bind" situation encountered in schizophrenic interaction. The "double-bind" is a situation in which contradictory cues are transmitted within the course of an interaction, these cues being transmitted simultaneously, and the receiver of the conflicting cues is forced into a conflict situation, a "damned if you do, damned if you don't" state of affairs. Bateson (1960) isolated the double bind through a linguistic-kinesic analysis of slow motion film by observing and analyzing micro-kinesic cues and reactions going on between the interactants. Bateson reduced the stream of behavior to objectifiable, discreet, and significant behavioral entities. In short, Bateson moved to and applied the emic level of analysis.

SECTION V

The classical method of the cultural anthropologist is that of participant-observation. In the study of certain groups, however, full-scale participant observation is a practical impossibility. The "drug sub-culture" is such a group. The legal, ethical, and medical complications involved in entering and participating in a drug abusing social network (Feldman: 1971) would seriously hinder the anthropologist full scale and truly valid ethnographic research.

An alternative method for studying such groups is the "natural controlled experiment" (Goodman:1970, 197 - 203) in which the researcher constructs a simulated life-situation within which the subjects of the experiment perform as they would in their natural environmental setting. The natural controlled experiment

> "...permits evaluations of causal relationships under controlled conditions in a setting perceived as phenomenologically real..." (Goodman:1970, 197).

The idea of the natural controlled experiment in studying such a population as the "drug sub-culture" allows the investigator many opportunities which would probably not make themselves available in a field situation. The natural controlled experiment essentially "...permits the researcher to create the problem rather than wait for its occurence."(Goodman:1970,201).

Of course a serious consideration in evaluating the validity of the natural controlled experiment as a duplicate image of the natural setting is the question of whether or not the subjects are reacting to a laboratory situation in a manner significantly different from their reaction to an analogous "natural" situation. My only

answer at this stage would be that the validity of research in the laboratory situation depends entirely upon the investigator's ability to abstract emic level phenomena. That level is beyond the conscious control of the actor and, therefore, the setting which produces the behavior should have negligible influence over the extraction and integrity of the behavioral entities abstracted for analysis. The natural controlled experiment replicates an actual life situation placed within the context of the subject's experiential and communicational frame of reference. The investigator observes the interaction being played out and proceeds with his analysis from this point. The investigator is also in a position to manipulate situational variables as he sees fit, an opportunity which would rarely, if ever, present itself to an anthropologist in an actual field situation.

Michael Agar, a staff anthropologist at the U.S.Public Health Service Hospital at Lexington, Kentucky, used just such a natural controlled experiment in an investigation of interactive semantic patterns of drug addicts in treatment at Lexington (1971). In his project he developed a simulated situation in which the subjects were asked to act out various aspects of the drug addict's daily round of life "on the street". In that experiment only sound tape-recordings were used in the collection and analysis of data. Agar recommends the use of visual recording devices in future studies of this sort so that non-linguistic patterns of communication might be studied.

Considering the work of Birdwhistell, Hall, Bateson, and Lomax it is obvious that the concept of investigating non-linguistic modes of communication using visual recording devices has a firmly established theoretical and practical base in modern anthropology. The remainder of

this paper will discuss an analysis of narcotic addicts participating in a natural controlled experiment in which an attempt was made to isolate and examine emic behavior patterns as those behaviorcmes relate to the communicational patterns and interactional dynamics of the subjects. The data will be examined at the various levels of the interactional situation: the geographic; proxemic; and kinesic.

SECTION VI

All of the individuals participating in the project are patients at the Narcotic Addiction Rehabilitation Program of the West Philadelphia Community Mental Health Consortium. The subjects are all opiate addicts, primarily abusers of heroin, some having histories of mixed addictions, i.e. being addicted to opiates and at the same time habitually abusing another class of drugs, such as barbiturates or stimulants (amphetamine, cocaine, etc). All of the individuals in this project were, at the time of this study, undergoing treatment for their addiction on an outpatient basis and were being administered Methadone on a regular basis. Methadone is a synthetic opiate which acts on the central nervous system as a narcotic substitute by competing with other opiates for the same receptor sites in the nervous system, hence inhibiting a euphoria if the individual injects a competing opiate, such as Heroin, within 24 hours after ingesting Methadone. (Moffett, Cuskey and Wieland: 1971, 29-36). All of the patients in the Methadone Program are undergoing treatment on a voluntary basis.

The original plan for this project called for a series of six group therapy sessions, with the same population of six patients participating throughout the series. The specific group therapy modality planned for was the psycho-drama. This modality was favored by the investigator since it represents a truly simulated situation technique in which the group members act out life situations. This situation would ideally allow the observor to examine communication channels of drug addicts which would reasonably replicate communicative behavior in the natural setting. The reality of the situation, however, considering the relative instability of heroin addicts attending a group therapy session on a completely voluntary basis, saw four sessions

completed. The population did not remain the same throughout the series of four sessions that were eventually taped.

The sessions were video-taped. Compared to sound film recording and analysis of data, video-tape recording has serious limitations. The primary restriction imposed upon the investigator in this project by the video-tape technology was in the area of resolution quality and re-view analysis. Considering the absence of time-lapse recording and playback devices the investigator had to settle with relatively crude examinations of behavior on a level far less subtle than micro-analysis possible through the use of film would permit. Also, the video-tape equipment used lost its audio portion during slow-motion play-back. (See appendix for equipment list). This made the exact correlation of linguistic with non-linguistic data very difficult and forced the investigator to confine his analysis to macro-level units for observation and analysis.

With all of these technical drawbacks, however, video-tape does have certain definite advantages for the anthropologist. The use of video-tape allows the anthropologist in the field to record, as it happens, behavior which would be impossible to observe and analyze were it not for the use of visual recording devices. Video-tape allows the field-worker to view results while still on the scene and while the group under study is still present and can, if need be, taped again. Also, the relative permanence of video-tape allows the investigator to view data collected over long periods of time and over wide geographic areas. This potentially allows cross-cultural comparison of behavior units not included in data collected by the more traditional, means. In a laboratory - clinical setting the primary advantage of

video-tape lies in the ability of the therapist to record the behavior of the patient and then allow the patient to view himself immediately following the recording session. This therapeutic device has been used extensively (Wilmer:1970, 102-108), (Moore, Chernell, and West: 1965, 217-220), (Ryan:1965,101-104), (Schiff and Revich:1964, 84-88) by therapists interested in implementing behavior modification in the patient, and image appreciation in the patient.

The group sessions were video-taped on four consecutive Friday afternoons during late January and early February, 1971. The first session was recorded with the camera located behind an observation mirror. The camera was equipped with a 25MM to 100MM zoom lens and the camera operator was free to move from individual to individual in his coverage of the ninety minute session. Upon consultation with Albert Scheflen, Director of Studies in Human Communication at the Bronx State Hospital (January, 1971) it became quite apparent that the optimal arrangement for video-taping a group was to have two cameras placed <u>inside</u> of the room in which the session was taking place. One of these cameras was to be placed in a fixed position and fitted with a wide-angle lens. The second camera was equipped with a zoom lens and handled by a "free" operator, "free" implying the liberty of the operator to record specific actions as opposed to the fixed camera which would record the activities of the entire group from a stationary point of view. The two camera arrangement provides an unbiased datum point of recording in the fixed camera station combined with the freedom of selectivity of the "free" camera. No matter what ethnocentricity might be exhibited by the "free" camera, the static reference base of the fixed station still allows the investigator to examine all of the ongoing behavior from a relatively unbiased point

of view. In the project under discussion budgetary consideration restricted the available equipment to one camera. A compromise saw the mounting of a single camera equipped with a wide angle inside the room in which the group was held. Adaptation to the visible camera during the three remaining sessions was markedly quicker than to the hidden camera used during the taping of the first session. The rate of adaptation was illustrated by the behavior of the subjects in both situations. When the camera was "hidden" behind an observation mirror the subjects were continually, for the entire ninety minute session, speaking in the direction of the mirror and on several occasions throughout the session a patient would walk to the mirror and attempt to look through the glass, apparently to "find" the camera. In contrast to this type of response to a hidden camera-observor, once the camera was moved to a fixed position inside of the room in which the subjects were sitting (see figure #1 page 29) the gaze direction of the patients, after a maximum of two minutes following their entry into the room, left the camera lens and "focused" upon the ongoing interactions within the group proper.

In his dissertation, Videotape Techniques in Anthropology (1970), Joseph Schaefer comments on the quick adaptation of the subjects for his videotape study when the camera was situated in an open and fixed position.

(See figure #1, page 29 for a map of the room showing camera placement relative to chair placement.)

X = overhead microphone

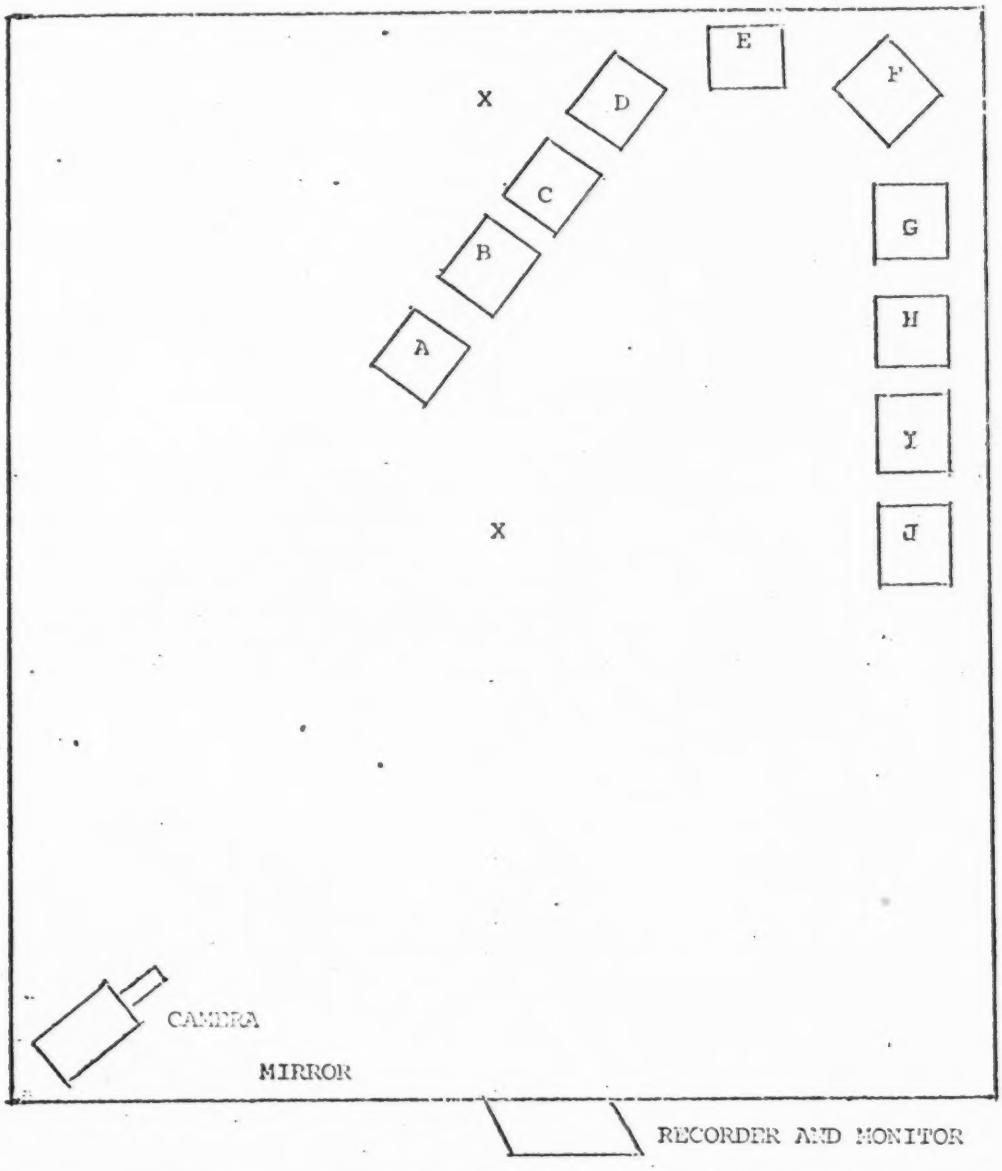
= body orientation

= gaze direction

= direction of movement

FIGURE #1 (Room layout)

symbols representing body orientation, gaze direction, and direction of movement are used in subsequent mappings of ongoing actions.



lettered squares refer to chair designations. Numbers in later figures will refer to subjects occupying that particular chair(see figures,2,3,4,5)

For the remainder of the thesis a "session" will mean the formal, ninety minute group therapy meeting. An "episode" is a short sequence of behavior occuring within a session and isolated by the author on the video-tape record of the entire session. Of the four ninety-minute sessions which were recorded with a wide-angle lens fixed inside of the room, three episodes will be described. The choice of the episodes to be used was dictated by the fact that all of the episodes occured within one session, therefore all falling within the same specific social context, and because the three episodes to be described illustrate on a variety of behavioral levels the same type of behavior. That behavior will be described below.

The episodes all revolve around various levels of "blocking" or exclusionary behavior on the part of individual subjects or sub-groups of subjects. By "blocking" I mean exclusionary behavior manifested by the individual or the group in question. This blocking phenomenon serves to reinforce, define, and defend the social and cognitive sub-systems of the addicts in the study. These subsystems, to be discussed later, revolve around the reference points in the careers of abuse and addiction subject and the values that the "drug sub-culture" sets upon certain types of addicts. They block behavior seen as deviant from their standards of "normality" and acceptability. They block, they geographically, posturally, proxemically, and kinesically exclude certain individuals or groups from particular sets of activities and certain types of interactive functions.

The procedure to be employed in the analysis and explication of the three episodes will be carried out in the following manner:

1. Pertinent life history information on the subjects in

each episode. This procedure should aid in contextualizing, to some degree, the status and role of each subject within the interacting group as the sequence of events within the particular episode is described.

2. A non-technical narrative description of the episode. This narrative procedure should also serve to contextualize the actions of the subjects.

3. A formal analysis of the episode showing the actions of the subjects as they occured in simultaneous time segments.

4. A series of maps (figures) correlating with procedure #3 (above) illustrating changes in body orientation, gaze direction, and group geography as expressed in seating arrangements.

LIFE HISTORY STATEMENTS

Subject #1:A thirty-two year old white female. She has a history of homosexuality. She has a history of chronic Morphine addiction over a period of fourteen years. She is a registered nurse whose license was suspended for five years (four years from date of video-taping) following her conviction and incarceration for theft of narcotics from the hospital where she was employed as a nurse. She has been through several in-patient drug addiction treatment programs. Her prior treatments include the U.S. Public Health Service Hospital at Lexington, Kentucky and Manhattan General Hospital. Her criminal history includes several arrests and convictions for such offenses as illegal use, possession and sale of narcotics, larceny, and forgery of perscriptions. At the time of videotaping she had been in treatment at the Methadone program for thirty months on an out-patient basis. Her clinical pro-

gress has been good and her prognosis is seen as excellent, i.e. eventual detoxification from Methadone. She no longer abuses Morphine (see note following life history statements) and has responded well to psychotherapy. She has applied for reinstatement of her nursing license upon eventual discharge from the Methadone Program.

Subject #2:A twenty-two year old white, Italian-American male. He has a short but acute history of Heroin and barbiturate addiction. He is married and has one child. His wife is neither an abuser nor an addict. At the time of taping he had been at the Methadone program four twenty-four months as an out-patient and periodic psychiatric in-patient. He has been a chronic abuser of barbiturates, amphetamine, Heroin and extra Methadone since beginning treatment two years ago. Shortly before the taping sessions were initiated he began a period of acute anxiety and depression and entered a period of chronic and massive abuse of Heroin, barbiturates, and illegally procured extra Methadone(see note following life history statements). Between the time that the taping sessions were concluded(February, 1971) and the writing of this report (April, 1971) he suffered three massive overdoses of barbiturates, the last of which was lethal, and which has been listed as suicide by the Medical Examiner's Office.

Subject #3: A twenty-five year old white Jewish male. At the time of the taping he had been under treatment for drug addiction for eight months. At the time of admission he was addicted to Heroin and barbiturates. At the time of taping he was doing very poorly in treatment and was chronically abusing barbiturates, heroin, and extra methadone. (see note following life history statements) He has a history of several arrests for possession and use of dangerous drugs with no convictions.

Subject #4: A twenty-three year old black male. He is overtly "bisexual". He has been addicted to Heroin and barbiturates for five years prior to treatment. At the time of taping he had been in treatment at the Methadone program for three weeks. He has a record of numerous arrests and convictions in several states for drug-related offenses. At the time of the taping he was involved in chronic abuse of barbiturates and since entering treatment has had one overdose of Stelazine, a non-narcotic tranquilizer. Reports from his therapist indicate that he has been responding poorly to counselling, showing extreme resistance to attempts on the part of the therapist to engage him in minimal behavior modification.

NOTE All patients on the Methadone Maintainance Program periodically have their urines tested forpresences of illegal drug compounds. Through Thin Layer Chromotography the urines are analyzed for the following compounds: barbiturates; cocaine; amphetamines; quinine (the substance which is used to "cut" or dilute Heroin); Morphine (Heroin converts to Morphine sulfate immediately upon entering the blood stream); and Methadone. Through regular urine surveillance the patient's drug abuse behavior can be monitored. Hence the inclusion of current drug abuse behavior in the life history statements on the subject population.

All of the following episodes took place within one ninety minute session. An interactional "blockade" of one individual in the group by the other three members of the group was the singularly dominant pattern of behavior throughout the session. From the very

outset of the session Subject #1 was consistently excluded from the ongoing mainstream of the group activities and interactions. Although several attempts were made by her to enter the group she was blocked out on each attempt. The blocking behavior manifested itself on postural, linguistic, and geographic levels whenever an attempt of entry was made. It might do the reader well to bear in mind the social organization of this particular group situation.

Subject #1 can be seen to be in contrast to Subjects #2,#3, and #4 on several levels.

1. Subject #1 is female. Subjects #2,#3, and #4 are male.

2. Subject #1 is affecting a masculine appearance. Subjects #2 and #3 are not overtly homosexual and Subject #4 is bisexual.

3. Subject #1 has a clinical history of only Morphine addiction while Subjects #2,#3, and #4 have addiction careers which include Heroin dependency. Heroin, among urban narcotic addicts, is regarded as being a more prestigious drug than Morphine. It is more expensive, more euphoric, and has more of a romantic image surrounding it than Morphine.

4. Subject #1 is one of the Methadone Program's more successful patients. Subjects #2, #3, and #4, at time of taping, were heavily abusing drugs and were involved in other illegal activities.

The group, then, is divided into two subsystems. On the one hand, Subject #1, and opposed to her is the subsystem involving Subjects #2,#3, and #4. The subsystems are demarcated from one another on a variety of levels: gender (male-female); sexuality(hetero-sexual-homosexual); status (morphine-heroin),(criminal-addict versus progressing patient).

SECTION VII

The descriptions of the following episodes will illustrate how the subsystem of male subjects uses linguistic, geographic, postural, and kinesic devices to maintain in-group integrity and identity against the repeated non-linguistic attempts at incursion made by Subject#1.

EPISODE ONE

The four subjects entered the room one by one. Subject #3 enters first and sits in chair "F" directly facing the television camera. He assumes a posture of right ankle over left thigh cross with both arms resting on the backs of the chairs to either side of him. Both hands hang limply from wrists with palms facing inward, toward his trunk. His gaze direction is up at ceiling. See Figure 2.

Subject #1 enters and chooses chair "J". She sits erect in the chair, the small of her back and shoulder-blades touching the back of the chair. She folds her right leg over her left knee. She crosses her right arm over her left arm and holds this arm cross position under her breasts. She looks straight ahead. Nothing is said by either her or Subject #3 throughout the entire process of her entry into the room and seating. See Figure 3.

Subject #2 enters. A mumbled and very brief unintelligible (to the observor) verbal greeting is exchanged between Subjects #2 and #3. Nothing is said to Subject #1. Subject #2 moves to chair "G" and sits with his legs open, feet flat on floor and palms flat upon thighs. Before assuming this sitting position he had placed a newspaper on chair "H". As he sat down Subject #1 placed a brown

paper bag, containing her Methadone, on chair "I". Subject #2 rises, moves across the room and returns carrying an ash-tray stand which he places in the position noted on Figure 4. He then sits again in chair "G" and crosses his left leg over his right knee. His arms are crossed at the forearm, left over right and rest in his lap as he leans forward from the waist and turns his left shoulder away from Subject#1 so that his torso is oriented in the direction of Subject #3. See Figure 4. Nothing has been said since the initial greeting to Subject #3 by Subject #2 upon the latter's entry.

Subject #4 enters and chooses chair "E". Subject #2 and Subject #3 greet him. He returns the greeting and greets Subject #1 who returns the greeting and turns her torso so that her trunk becomes oriented slightly more than it had been in the direction of the other subjects. Nothing more is said. Subject #4 sits erect in his chair with his right ankle resting on the left thigh. His left arm goes over the back of chair "F" in which Subject #3 is sitting. Upon entry of Subject #4, Subject #3 had removed his right arm from the back of chair "E". Nothing has been said since the greeting. Subject #4's right arm is held against his right side with the palm on the right thigh. His gaze is in the direction of Subject #2. See Figure 4.

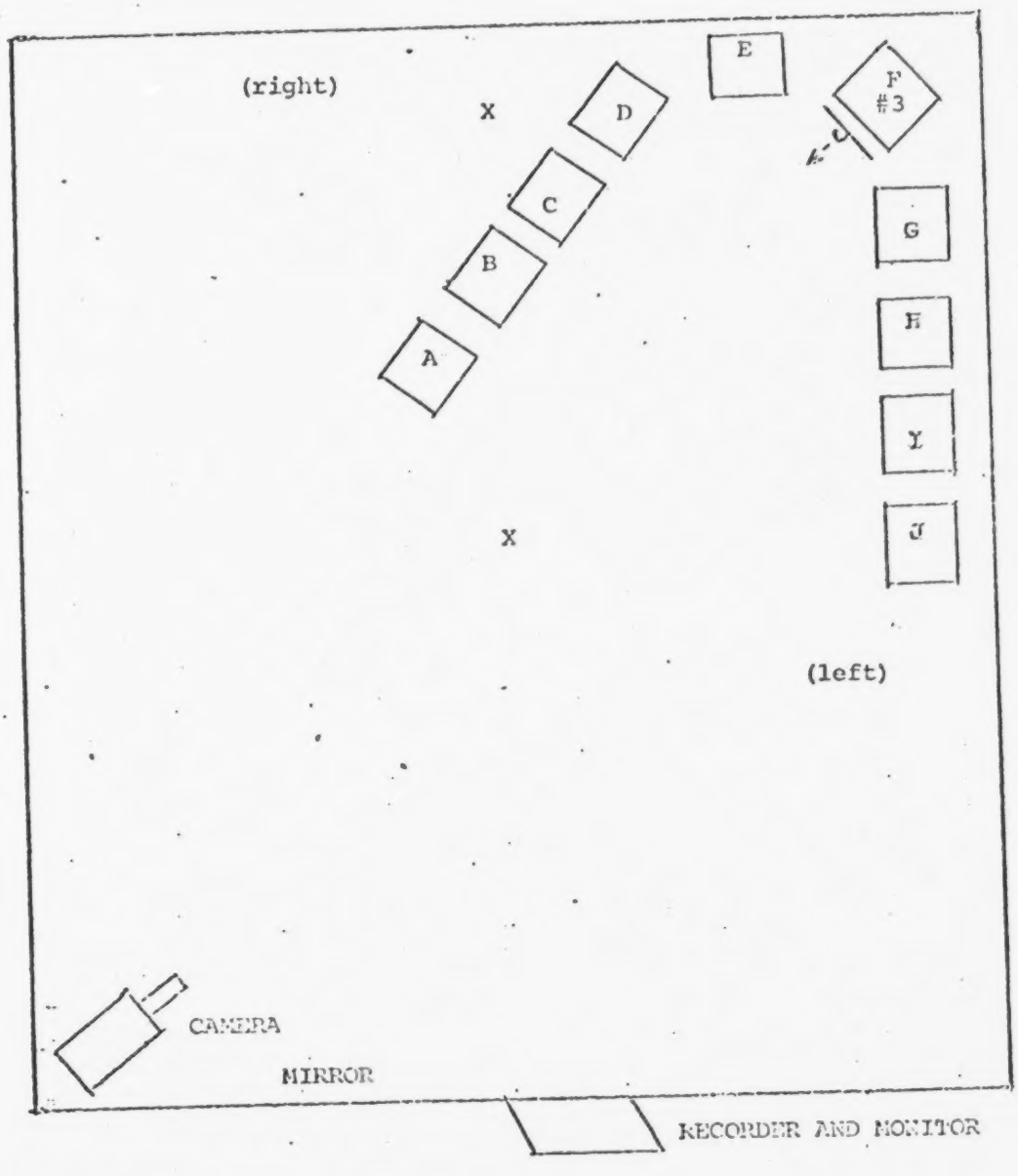
X = overhead microphone

= body orientation

= gaze direction

= direction of movement

Figure 2



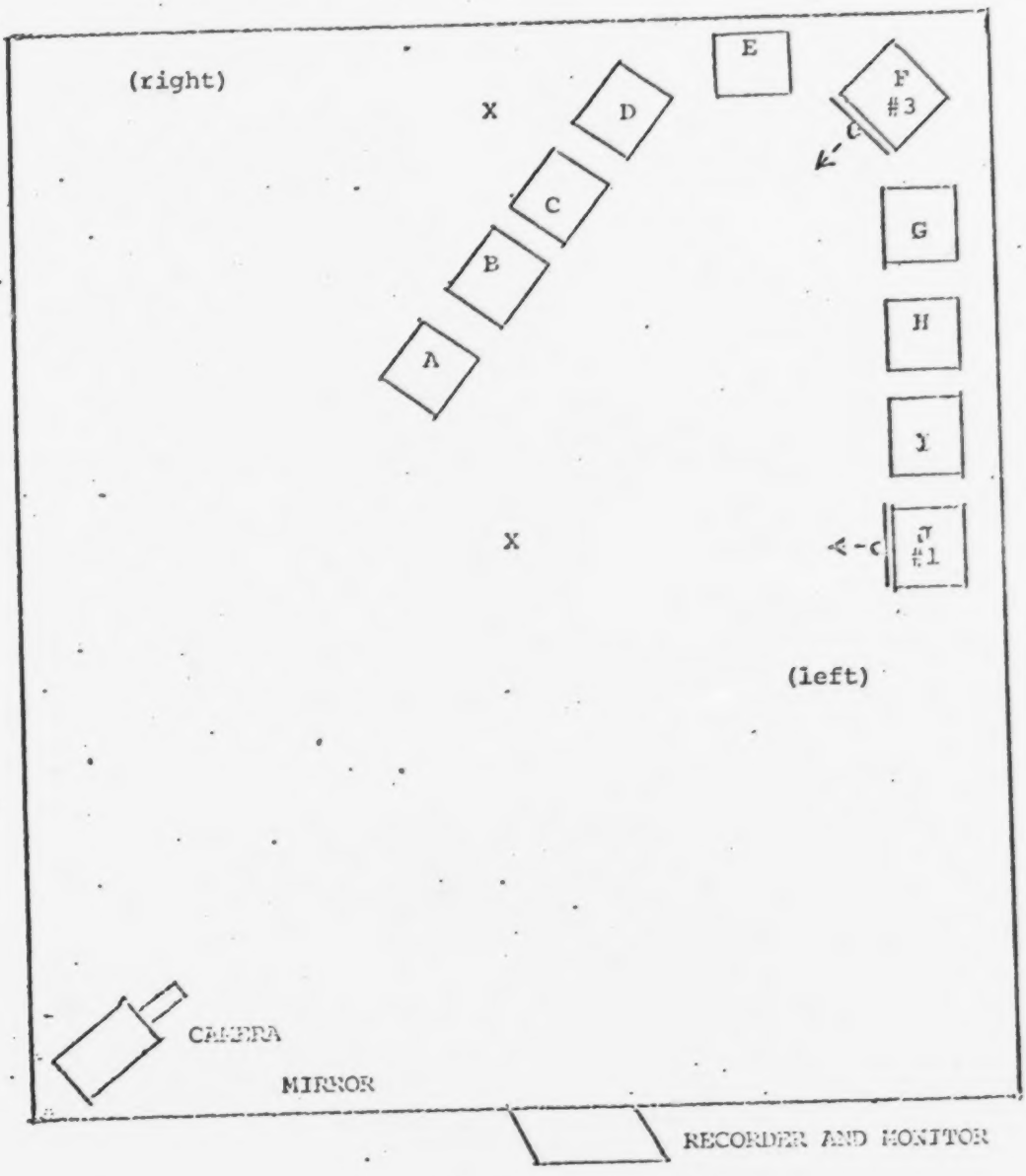
X = overhead microphone

FIGURE 3

C = body orientation

----> = gaze direction

——> = direction of movement



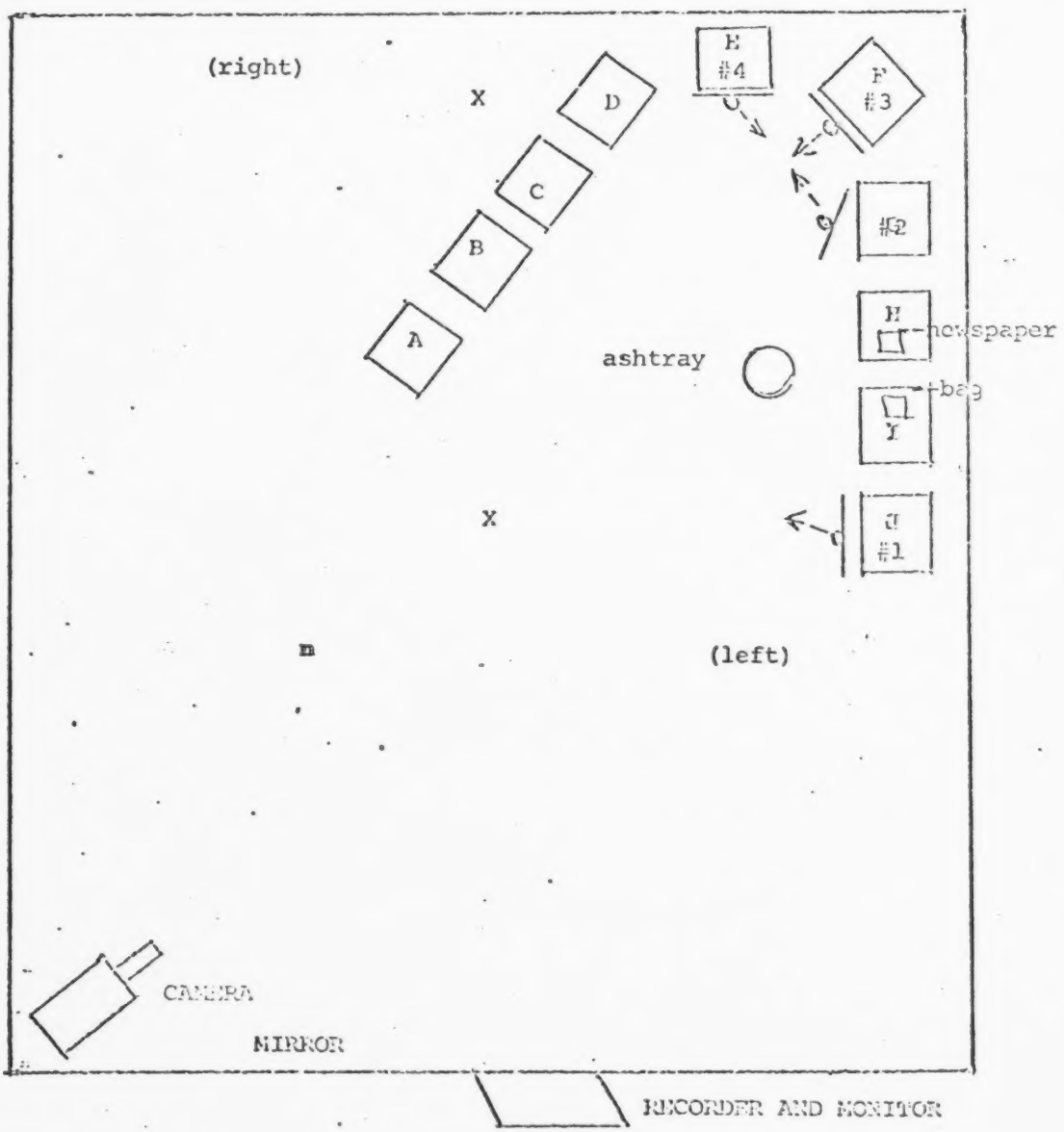
X = overhead microphone

= body orientation

= gaze direction

= direction of movement.

FIGURE 4



The initial actions of the group members in terms of seating arrangement and postures, as well as placement of such semi-fixed features as the ash-tray set up a geographic system of boundary markings serving to set off Subject #1 from the three other subjects. Subjects #2,#3 and #4 have oriented their trunks into a huddle type of arrangement and their legs are arranged in such a way as to reinforce the seating arrangement boundaries set by them. Also Subjects #2 and #4 sitting at the outer edges of the "huddle" used their arms in such a way as to lock-in on their group and lock-out or exclude Subject #1 from the perimeter configurations of the all male group. Subject #4 has his left arm over chair "F" in which Subject #3 is seated. Subject #3, in turn, has his arm (left also) over the back of chair "G" in which Subject #2 is seated. The gaze directions of Subjects #2,#3, and #4 are toward the center of the "huddle". The gaze of each of them is directed to some point in the middle of the male "huddle" subsystem. Subject #2 moved the ashtray to a position between chairs "H" and "I". The sequence in that series of movements had been the placement of the newspaper on chair "H" by Subject #2, followed by the placement of the brown paper bag on chair "I" by Subject #1, followed by the getting and placing of the ashtray, followed by the seating of Subject #2 in an orientation directed away from Subject #1 and toward Subject #3. Also the posture assumed by Subject #2 upon resuming his seat was not the same open-legged position assumed prior to the first blocking incident with Subject #1 but a cross-legged, arm-folded lock-out of Subject #1 and lock-in on Subject #3.

Subject #1 has, from her first moment in the room, blocked and been blocked. She countered each block of the male group with

postural counter-blocking and also counter-blocking through the use of free objects in the room (the brown paper bag).

From the outset of the group session, then, there was established a set of defensive perimeters in which posture, seating arrangement, gaze direction, use of free and semi-fixed objects, body orientation, and use of limbs were used to reinforce pre-existing status and role configurations among the members of the group, these configurations defineable in terms of the social organization of the urbam drug addict. Socially disharmonious, culturally "discordant", a member of a drug abusing population is labelled as deviant and is geographically excluded from the normal population. See Figure 5

The time frame in which the entire range of the above-described activities took place was 2½ minutes (150 seconds). This time frame began with Subject #3 entering the room and ended with Subject #4 assuming his final posture in chair "E".

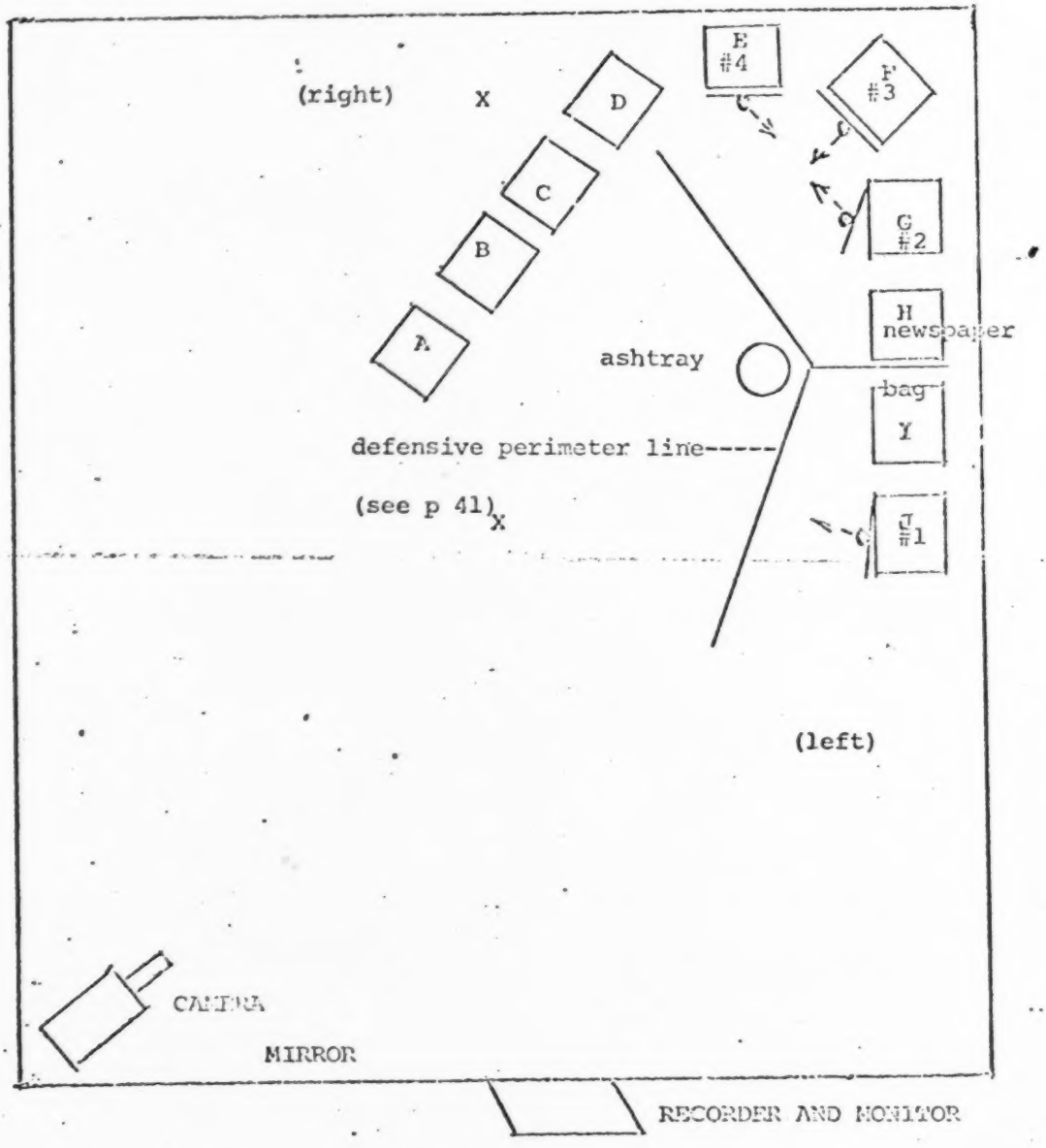
X = overhead microphone

= body orientation

FIGURE 5

= gaze direction

= direction of movement.



EPISODE TWO

This episode took place within five minutes after Episode one concluded.

The following account describes an episode in which a blocking action takes place through the movement of a body into a space between opposing subsystems. The blockade movement of this type serves two purposes. First, it will be illustrated that the block cuts off on-going or beginning dialogue and interaction, and in the second place, it will be shown (through the actions of the persons involved) that the block serves a simultaneous function of reinforcing the established territorial markers of the established subsystems within the group (cf Figure 5, page 42).

Background Context: Subject #4 rises from chair "E", lies on his back in front of Subjects #2 and #3 and performs an acrobatic "trick" by raising his torso from the floor until only his feet and his head support his full weight. Having done this he resumes a standing position, faces Subjects #2 and #3 and challenges anyone present to "top that one." He resumes his seat in chair "E". Subject #1 rises and stepping forward toward the three males begins to show them another "trick" involving inter-twining of the fingers of both hands so that they form some sort of design. Subject #1 gains the attention of Subjects #2 and #3 who begin to show interest. Subject #4 rises and walks away from the group which is now focused on Subject #1 and her hand trick. Subject #4 walks to the far end of the room, stops before the mirror, turns, and walks back in the direction of the group. With the word "...dig..." Subject #4 steps directly between Subjects #1 and #2, over the ashtray. At this point, when Subject #4

is directly between Subjects #1 and #2, Subject #1 begins to step backwards in synchrony with the side stepping of Subject #4. Subject #1 and Subject #4 reach a sitting position in synchrony. Subject #4 picks up the newspaper from chair "H" before he sits in that chair. He opens it and Subjects #2 and #3 direct their attention to Subject #4 and the newspaper. Subject #4 has turned his back to Subject #1. Subject #1 has, meanwhile, locked out the group of males by resuming her seat in chair "J", looking away from the group, over her left shoulder, and then turning her gaze direction to the direction of the male subsystem.

The following charting shows simultaneous postural and gaze direction behavior among the interactants involved in this exchange. All of the charts included in this thesis include only those subjects actually involved in the interaction in question. Absence of a subject in a charting should be viewed as non-participation in the actual, observable event being examined. Omission, then, signifies non-relevance to the action being analyzed.

	STEP #1	STEP #2
Subject #1	Standing. 3/4 facing Subject #3 Arms 1/2 extended to front in midline Hands together. Fingers inter-laced. Gaze directed at hands.	Leans forward from waist Right foot steps back. Hands sperate and drop Gaze drops to floor
Subject #3	Seated. Right ankle rests on left thigh Arms folded on chest. Gaze at hands of Subject #1	Legs begin to uncross Arms begin to unfold Gaze drops to floor.
Subject #4	Approaches group from rear of Subject #1. Speech "...DIG..."	Reaches point between Subjects #1 and #3. Raises right leg and steps between Subjects #1 and #2. Leans forward from waist toward Subject #3.

	STEP #3	STEP #4
Subject #1	Hands at sides. Left foot back. Gaze at camera. Straightens at waist	Fully erect Hands at sides Feet flat on floor Looks over right shoulder at chair "J"
Subject #3	Legs open. Feet flat on floor. Hands rest on thighs. Gaze at trunk of Subject #4	Same as in STEP #3 except eyes focus on eyes of Subject #4
Subject #4	Right foot touches floor Body turns to face Subject #3 Straightens at waist. Stands erect.	Bends forward from waist. Begins to sit in chair "H" Reaches back with left hand and grasps newspaper on chair "H"

	STEP #5	STEP #6
Subject #1	Begins sitting in chair "J". Gaze over left shoulder away from group.	Buttocks hit chair "J" Left arm out and up to chin level in front of body - extended. Gaze left. Right ankle over left thigh- Locks out males.
Subject #3	Same position as STEP #4. Gaze to newspaper held by Subject #4	Position and gaze unchanged
Subject #4	Completes sitting in chair "H" Left hand brings newspaper to lap. Left leg crosses over right. Back presented to Subject #1 Leans forward from waist. Subject #1 locked out. Subject #3 locked in.	Completes lean toward Subject #3 Presents full back to Subject #1 and full front to Subject #3. Gaze to newspaper in lap.

STEP #7

Subject #1 Left arm drops to side.

Head and gaze direction turn to group.

Subject #3 Locked in to Subject #4 and newspaper

Subject #4 Locked in to Subject #3 and newspaper

E P I S O D E E N D S

Within the very real limitations imposed upon the investigator by the relatively inefficient re-view potential of the videotape apparatus, it is still possible to make certain observations regarding the synchronous movements within the group at particular stages of the interactive sequences.

Subject #3 in Step #2 began a postural shift and gaze direction shift in synchrony with the initial interrupting move of Subject #4. His arms unfold and begin to drop. His legs uncross as Subject #4 begins his side-step into the group (Step #2). When (Step #3) Subject #4's right foot has touched the floor - Subject #3 in synchrony with the turning of Subject #4's trunk and right foot reaching the floor, has completed his postural shift as described in Step #3. The bodily intervention of Subject #4 was completed in synchrony with the attention-orientation shift in the posture and gaze direction change of Subject #3.

The second area of interest in this episode involves the interaction between Subjects #1 and #4. Subject #4, in Step #4, begins to sit. Subject #1 has dropped her arms to the sides and taken two steps backwards in the direction of chair "J". The synchrony is developed by Step #6. As the back of Subject #4 is fully presented to her, Subject #1's buttocks reach the seat of her chair and she begins a leg cross while raising her left arm to chin level in front of her and looking 180 degrees away from the other subjects. Subjects #1 and #4 have completed their mutual lock-outs of each other at Step #7 and equilibrium is restored.

EPISODE THREE

Background Context: The third and last episode to be analyzed involves a therapist in the interaction. Prior to the action to be examined taking place, a female therapist had entered the room and taken chair "A". Upon the therapist entering the session, the full attention - both in gaze direction, and in body orientation - of Subjects #2, #3, and #4 became directed at her and a conversation about femininity began. This episode took place about 45 minutes after the completion of episode two. Subject #2, who had been in a semi-stupor, a "nod" due to heroin intoxication, was sufficiently recovered from his euphoria at this time to be able to participate in the activities about to be described.

The episode to be described involves an interaction between Subjects #1 and #2 showing interactive lock-out behavior synchronous on a kinesic level.

Subject #2 attempts to engage the therapist in conversation. Subject #1 begins to move forward to the ashtray located between her and Subject #2. Subject #2 begins to go through a lock out gesture and Subject #1 picks up his movement, begins to lock out on Subject #2 and a mutual lock-out is completed in the respective subjects' leg, arm, and trunk areas in absolute synchrony with one another.

	STEP #1	STEP #2
Subject #2	Leans forward in chair. Arms crossed in lap. Feet flat on floor. Gaze at therapist	Moves back to erect posture. Arms remain unchanged. Feet remain unchanged. Gaze at therapist.
Subject #1	Leaning forward in chair. Right arm extended to front with cigarette toward ashtray Feet flat on floor.	Moves back in chair to erect sitting position. Feet remain flat. Ashtray unreached. Arm returns to point close to body.
Therapist (Janet)	Arms folded under breasts. Right thigh over left knee. Oriented on Subjects #2, #3 and #4	No Movement
Subject #3	Lean forward toward therapist. To therapist: "...I'VE SEEN IRV...	No movement ...YA TH' EYE..."

	STEP #3	Step #4
SUBJECT #2	Right leg begins to rise at completion of "...YA..." Arms begin to move up from lap. "...JAN HOW OLD ARE YA..."	Reaches fully erect posture. Arms 1/2 extended to front at mid-trunk level. Right leg crosses left. "...JAN..."
Subject #1	Continues back to erect posture. Right leg begins to rise.	Fully erect. Arms moving in toward body. Right leg moves over left.
Therapist	Gaze to Subject #2	No Change

	STEP #5	STEP #6
Subject #2	Arms crossed six inches in front of trunk. Right leg poised over left thigh. Erest posture. Gaze at therapist. "...HOW OLD..."	Crossed arms close on chest. Right leg drops over left thigh. Shoulders sag. "...ARE YA..."
Subject #1	Arms in same position as Subject #2. Right leg poised over left knee. Erect Posture. Gaze over left shoulder.	Crossed arms touch trunk under breasts. Right leg drops over left thigh. Shoulders sag. Gaze straight ahead
Therapist	No change	No change

Subject #2	Hands drop to lap. Reaches position of rest Gaze at therapist. "...JAN..."
Subject #1	Right hand grasps left arm of chair. Gaze at therapist.
Therapist	No Change.

E P I S O D E E N D S.

SECTION VIII

Taking into consideration the contexts of episodes one and two, it becomes evident that the behavior of Subject #1 and Subject #2 in the third episode are contextually consistent with the two prior episodes. Each episode saw the manipulated exclusion of Subject #1. In episode three the exclusive behavior was relatively subtle. It involved a shift of posture by one participant (Subject #2). Taken as an isolate the movement of Subject #2 could not be viewed as socially significant. However, on three dimensions of consideration his movements do achieve a degree of communicative significance. On the most subtle level of perception the degree of synchrony between homologous body parts of Subject #2 and Subject #1 indicate interactive behavior. This statement gains validity if one considers the next two dimensions. Attention was being paid to a female therapist who is considered to be quite attractive by the patients on the Methadone treatment program. The female subject (Subject #1) made a forward movement which apparently served to cue the speaker, Subject #2, that his interaction with the therapist was about to be trespassed upon. He moved from an open position to a closed position (legs crossed,arms crossed, body back into chair from a position of relative openess: legs open, arms relaxed in lap, body forward). This apparent defensive movement was certainly received as defensive by Subject #1 who synchronously moved, in defense or counter-defense, to her position described in Steps 6 and 7.

The third dimension involves the entire ninety minute session. Subject #1 was consistently excluded from the group. When conversation between her and the rest of the group did occur it took the form of mutual attack and confrontation. Subjects #2,#3, and #4 aligned

themselves against Subject #1 on several issues, ranging from the comparative euphoric effects of Heroin as opposed to Morphine, to an all-out confrontation regarding the masculine appearance of Subject #1. Episodes #1 and #2 illustrate other excluding type strategems on non-linguistic levels. Given these three dimensions and given the view that only through an examination of its context does a behavior unit gain its "meaning" (Birdwhistell:1964) it is evident that Episode #3 can be seen as another dimension of the same interactive behavior patterns manifested and observed in Episode #1 and #2.

The three sequences described fall along a continuum of levels of non-linguistic communication. Episode #1 involved the positioning of individuals within a room, the positioning having been shown to be a reflection of the Subjects' images of each other and of themselves. Episode #2 involved active participation by the group members in attempting to break the geographically defined social boundaries of the group (Subject #1) and the very active involvement of Subject #4 in attempting, and succeeding, to maintain the territorial and communicational integrity of the established male subsystem within the group. Episode #3 involved kinesic cues and responses between Subject #2 and Subject #1 in which the former sensed a threat to his ongoing interaction with an acceptable female and reacted by a kinesic level blocking move which was picked up as a cue and duplicated in synchrony as a counter-block by Subject #1.

Episode #1	Episode #2	Episode #3
Ecological Cues	Proxemic Cues	Kinesic Cues
(seating arrangements)	(bodily intrusion)	(body part cues)

What has been observed, then, in the three analyzed episodes, has been a hierarchical ordering of the communicative processes within a group. (Condon and Ogston: 1967). The hierarchy image is perhaps a bit misleading. All of the levels within an interactive episode exist and operate at the same time. The very nature of the redundancy of messages sent and received in a network of human communication serves to reinforce and edit the primary, or most apparent, messages sent and received by the interactants. What this thesis has done has been to analyze three episodes within a generalized context of the group therapy session. When the tape was initially re-viewed it became quite obvious that Subject #1 was being excluded. The three sequences in this thesis serve to demonstrate that the blocking behavior of the male subsystem existed on several levels of consciousness and manifested itself on several behavior levels, those levels being a reflection of the communication "code" operable within the groups. The "code" of blocking type behavior was used to defend the cognitive territory of the male subsystem. The significance of this finding is that it may now be possible to predict the reaction of a group of addicts to each other on the basis of their drug abuse careers and their depth of involvement in the "junky life-style", i.e. their involvement in the classic criminal behavior of the urban Heroin addict. On a very practical and therapeutic level this study indicates that the population of a group therapy session must be carefully chosen so as to maintain levels of interaction sought for by the therapist. If, for example, the therapist was focusing his efforts on encounter techniques and behavior modification goals, the composition of his group of

patients might well include a set of individuals from whom resistance to cooperative interaction might be expected. The therapist, then, would seek a population with histories of addiction, criminality, sexuality, etc. as varied as he considers necessary to achieve whatever degree of interactive disharmony is needed to foster encounter-type "dialogue" within the group.

This study, in short, has illustrated the existence of levels of interaction and levels of cognitive discrimination by the members of the "drug sub-culture". It has proven that this drug sub-culture is a subtle, complex, and organizationally sophisticated cultural phenomenon.

SECTION IX

The intent of this thesis was to develop a model for predictive research in the identification and isolation of a group known popularly as the "drug sub-culture." The basic methodology employed was an implementation of the prescribed linguistic method of Kenneth Pike and Claude Levi-Strauss for use in the analysis of social phenomena. The critical factor of Pike's proposed methodology is the reduction of data to the "bound unit" level of the phoneme. Also, the nature of the linguistic method and its great appeal to anthropologists as a model for predictive research, is that a language can be examined by more than one linguist and the nature of the phoneme, the idea of the bound and abstractable unit, should make possible identical abstraction and isolation of language components by however many linguists investigate the language material in question. Birdwhistell has utilized this concept in his development of a methodology for kinesic analysis. He has examined the kinesic patterns of American movers, both "normal" and "pathological" and has isolated various kinesic phenomena peculiar to various social groups, geographic areas, and psychopathological populations. He insists throughout the literature that the kinesic notation system is analogous to the phonemic notational schema employed by the descriptive linguist, and that separate investigators can achieve duplicate results using kinesic notations (Birdwhistell:1952) to describe the same pattern of movements.

The result of this thesis has been the isolation and identification of communicative mechanisms by which members of a group of addicts will establish and maintain (defend) the territorial integrity of their social subsystems. In this particular case an all male, heroin-methadone-

barbiturate abusing population aligned itself in opposition to a female, non-abusing individual. The maintainance of the male subsystem was established through communicational "cues" on a variety of levels of consciousness. These "cues" ran the range of subtlety from relatively inconspicuous gaze direction changes to manifestly overt acts of blocking, e.g. episode #2 in which one of the subjects stops developing "dialogue" between the female subject and a member of the male subsystem by stepping between them, blocking their view of one another, and finally using a newspaper article to draw the attention of the male. All three episodes in this thesis demonstrate the use of exclusionary behavior by members of the male subsystem. Considering the subtlety and the multi-channel communicational activities occuring simultaneously the use of sound and visual recording devices becomes necessary. The obvious advantage of video-tape or film in this type of study is that the investigator is capable of examining, in detail, the same segments of behavior repeatedly. Also the investigator can view the various levels of the communicational hierarchy as isolates, eventually collating all of the levels into an articulated multi-level analysis. Also, a permanent record is made of behavior within a given context and this record may be used again in comparison to other visual records of behavior, either of the same population through time in varying social contexts, or of other populations in analogous situations.

Predictive research, to date, in drug addiction has failed in its attempts to isolate the carriers of the pathology except in the most general way. The great bulk of sociological inquiries into the

nature of drug abuse have been little more than catalogs of the demographic characteristics of the known drug abusing population. These nose-counting exercises have given investigators a fair amount of knowledge into the extent of the drug addiction problem in modern America. However counting the members of a population tells us little, if anything, about the socio-cultural dynamics of their life-style, of their world-view, of the process involved in becoming a member of that population, of anything in short except how many of them there are. Demographic study in current drug addiction research has reached a point of involution. Immersed in their demographic quagmire of more and more elaborate and more and more meaningless population studies the quantifiers have categorically failed to predict anything meaningful at allabout the causes, the nature, and the cure of drug dependency. They have failed to do anything except to divide up and count addicted noses. This investigator is convinced that the identification of the "drug sub-culture", indeed the verification of its existence, can only be achieved through an implementation of Pike's model. The final result of this paper has been to point out areas of inquiry in drug addiction which need further exploration. The central consideration of the anthropologist should be an intensive examination of the cultural processes by which an individual becomes a drug addict. The process by which a drug enters a cultural unit, such as an urban gang, and the passage through the social network of the gang by the drug, is a question of critical importance. (Feldman:1970).

Also necessary is an examination of the socio-linguistic dimensions of drug addiction and abuse. By mapping the history and distribution of the jargon one could, perhaps, establish isomorphs of the language of drugs and attempt to locate historically established channels of communication.

A problem suggested by this paper involves the study of communicational synchrony within a group. Condon has shown that micrp-kinesic synchrony exists between the speaker and the listener. (Condon and Ogston: 1968). It has also been suggested that the movement patterns of an individual are learned and culturally conditioned. (Mauss:1936). An individual, therefore, learning a language cannot be considered culturally (natively) fluent in that language until he has mastered the kinesic and proxemic channels and has achieved synchrony with speakers of that language. It follows, then, that if a drug sub-culture does in fact exist, the indoctrination of an individual into the cultural patterns of the group involves indoctrination of the individual into the accepted and understood communication patterns of the group. Given, then, the period of dissynchrony before fluency and given the hypothesis that persons who become addicted to heroin do, in fact, enter a sub-culture, it becomes necessary to investigate, through diachronic analysis the communicational indoctrination of the individual becoming an addict. A micro-kinesic study would be made of a dialogue taking place among a non-addict, an established addict, and a novice abuser. If the novice becomes an addict then a second micro-kinesic study would be done with the same tric. The investigator would examine the levels of speaker-listener synchrony present at

bothe points in time and would document the emergent multi-channel "fluency" of the novice addict.

If culture is communication than levels of synchrony should become apparent. If, however, there is no appreciable difference in synchrony patterns at either or both points in time, then it might be suggested that one is dealing not with a general concept, such as "drug sub-culture" but with various life styles all involving the illegal use of mind-altering chemicals, these life-styles being determined by the social networks of the individuals and not by the fact that the manifest symptom of their pathologies are the same: drugs.

Only by an approach to drug addiction through the avenues suggested by Pike and Levi-Strauss can the social scientist isolate and hope to predict behavior patterns among members of a group.

The contribution of anthropology to psychiatry has been in the ability of the anthropologist to contextualize patient behavior in terms of the cultural matrix of which the patient is a part and to which he must relate. Anthropologists such as Birdwhistell and Bateson have contributed to the understanding of psychopathology by making psychiatrists aware of the necessity to examine the social and cultural content of a behavioral trait. Indeed, the trend in medicine and in the social sciences in recent years has been to view the object of study, whether it be organism or population, as an integrated, systematic, whole in which diagnosis or analysis become possible only through an investigation of the relationships of the parts to the whole.

So, too, in the study of drug addiction it is absolutely essential to examine the social and cultural matrices from which the pathology springs and the communicational networks, channels, and patterns which serve it and support it.

SECTION X

APPENDIX I

TRAINING DEPARTMENT

WEST PHILADELPHIA COMMUNITY MENTAL HEALTH CONSORTIUM

P.O. Box 8076
Philadelphia, Pennsylvania 19101

BA 2-5583

Robert L. Leopold, M.D., Director

I (we) authorize the Training Department of the West Philadelphia Community Mental Health Consortium to use any audio-visual recordings made by the Consortium of (myself) (my son, daughter, etc.). Said use by the Consortium shall be limited to purposes of teaching and research, but may be presented only before professionals in groups with the approval of the Director of the Consortium.

_____ Signed

_____ Date

APPENDIX II

EQUIPMENT LIST:

PANASONIC NV 3020SD 1/2 INCH VIDEOTAPE RECORDER

PANASONIC WV220P CAMERA

COSMICAR VTR CAMERA LENS--12.5MM 1:1.9 (WIDE ANGLE)

CANON C-16 ZOOM LENS 25MM - 100MM

SURE M-67 MICROPHONE MIXER (FOUR CHANNEL)

PANASONIC WM 3105 MICROPHONES (TWO)

PANASONIC AN69V 18 INCH VIDEO MONITOR

TRIPOD.

REFERENCES CITED

AGAR, Michael

1971 University of California at Berkeley, Personal Communication.

BATESON, Gregory

1958 "Language and Psychotherapy - Frieda-Fromm-Reichmann's Last Project." in Psychiatry 21. Pp96-100

1960 "Minimal Requirements for a Theory of Schizophrenia." in AMA Archives of General Psychiatry. 2 pp 477-491.

BIRDWHISTELL, Ray L.

1952 Introduction to Kinesics: An Annotation Study for Analysis of Body Motion and Gesture. University of Louisville.

1959(a) "Contributions of Linguistic-Kinesic Studies to the Understanding of Schizophrenia." in Schizophrenia. A. Auerback (ed.) The Ronald Press Co. Pages cited in text of this thesis refer to reprint supplied by the Eastern Pennsylvania Psychiatric Institute.

1959(b) "Paralanguage: 25 Years After Sapir." in Lectures in Experimental Psychiatry. H.W. Brosin (ed.) University of Pittsburgh Press. Pages cited in the text of this thesis refer to reprint supplied by the Eastern Pennsylvania Psychiatric Institute.

1963(a) "Communicating on Purpose." Pages cited in the text of this thesis refer to reprint supplied by the Eastern Pennsylvania Psychiatric Institute.

1963(b) "Kinesic Analysis in the Investigation of the Emotions." published as "The Kinesic Level in the Investigation of the Emotions." in Expression of the Emotions in Man. Peter H. Knapp (ed.) New York. Pages cited in the text of this thesis refer to the reprint supplied by the Eastern Pennsylvania Psychiatric Institute.

1964 "The Artist, the Scientist and a Smile" Address given 4 December, 1964 at the Maryland Institute of Art. Pages cited in the text of this thesis refer to the reprint supplied by the Eastern Pennsylvania Psychiatric Institute.

1965(a) "The Search for the Nature of Communication." in The American Family in Crisis. Forest Hospital Publications. Forest Hospital, Des Plaines, Illinois. Volume III, pp 4-21. Pages cited in the text of this thesis refer to the reprint supplied by the Eastern Pennsylvania Psychiatric Institute.

1965(b) "Communication: Group Structure and Process." in the Pennsylvania Psychiatric Quarterly. Spring, 1965. pp37-45. Pages cited in the text of this thesis refer to the reprint supplied by the Eastern Pennsylvania Psychiatric Institute.

1968(a) "Communication Without Words." in L'Aventure Humaine. Encyclopedie Des Sciences De L'Homme. S.A. Kister (ed.) Geneva. pp 157-166. Pages cited in the text of the thesis refer to the offprint supplied by the Eastern Pennsylvania Psychiatric Institute.

1968(b) "Communication as a Multi-Channel System." published as "Communication" in The International Encyclopedia of the Social Sciences. Free Press. Volume III, pp 24-29. Pages cited in the text of this thesis refer to reprint supplied by the Eastern Pennsylvania Psychiatric Institute.

1970 Kinesics and Context. Essays on Body Motion Communication. University of Pennsylvania Press. Philadelphia.

BOAS, Franz

1911 The Mind of Primitive Man. Reprinted in 1963 by the Free Press.

CONDON, W.F. and OGSTON, W.D.

1967 "A Segmentation of Behavior." in Journal of Psychiatric Research. Volume 5. pp 221-235.

1968 "Speech and Body Synchrony of the Speaker-Hearer." Reprint supplied by the Western Pennsylvania Psychiatric Institute.

DARWIN, Charles

1873 The Expression of the Emotions in Man and Animals. Reprinted by Phoenix Books, 1965.

FELDMAN, Harvey W.

1970 "Ideological Supports to Becoming and Remaining a Heroin Addict." in Drug Dependence, Number 3, March 1970. pp 3-11.

1971 "Methodological Problems of Entry into a Neighborhood Drug System." Presented to the Society for Applied Anthropology in April 1971 at Miami, Florida. Pages cited in thesis refer to reprint supplied by Dr. Feldman.

GOODMAN, Paul S.

1970 "The Natural Controlled Experiment in Organizational Research." in Human Organization. 29 pp197-203.

HALL, Edward

1959 The Silent Language. New York

1963 "A System for the Notation of Proxemic Behavior." in American Anthropologist. 65 (5) pp1003-1026.

1966 The Hidden Dimension. New York.

LEVI-STRAUSS, Claude

1967 "Language and the Analysis of Social Laws." in Structural Anthropology. New York. pp 54-65.

LOMAX, Alan

1971 "Choriometrics and Ethnographic Filmmaking." in Filmmaker's Newsletter. Volume 4 Number 4 pp22-27.

MAUSS, Marcel

1936 "Les Techniques Du Corps." in Journal de Psychologie. pp 365-386.

MOFFETT, Arthur D., CUSKEY, Walter R., and WIELAND, William F.

1971 "Utilizing Methadone in Outpatient Treatment of Narcotic Addicts." in Clinical Medicine. Volume 78 pp 29-36

MOORE, F.J. and CHERNELL, E., AND WEST, J.N.

1965 "Television as a Therapeutic Tool." in Archives of General Psychiatry. 12 pp217-220.

PIKE, Kenneth

1956 "Towards a Theory of the Structure of Human Behavior." Estudios anthropologicos publicados en homenaje al doctor Manuel Gamio (México D.F.) Sociedad Mexicana de Anthropologia

pp659-671. Also in Language in Culture and Society. Dell Hymes (ed.) New York pp 54-63.

RAPAPORT, Anatole

1968 "Foreword" in Modern Systems Research for the Behavioral Scientist. Walter Buckley (ed.) pp xxiii -xxxii. Chicago Aldine.

RUESCH, Jurgen and BATESON, Gregory

1968 Communication: the Social Matrix of Psychiatry. New York

RYAN, J.

1965 "Teaching and Consultation by Television" in Mental Hospital 16. pp 101-104

SCHAEFER, Joseph H.

1970 Videotape Techniques in Anthropology: The Collection and Analysis of Data. unpublished doctoral dissertation. Department of Anthropology. Columbia University.

SCHEFLEN, Albert E.

1964 "The Significance of Posture in Communication Systems." Psychiatry. Volume 27 pp 316-331.

SCHIFF, Samuel B. and REVICH, Ronald

1964 "Use of Television as Aid to Psychotherapy Supervision." Archives of General Psychiatry. Volume 10 pp 84-88.

WIENER, Norbert

1954 The Human Use of Human Beings:Cybernetics and Society. Garden City, New York

1968 "Cybernetics in History" in Modern Systems Research for the Behavioral Scientist. Walter Buckley (ed.) Aldine:Chicago pp 31-36.

WILKINS, Leslie T.

1968 "A Behavioral Theory of Drug Taking" in Modern Systems Research for the Behavioral Scientist. Walter Buckley (ed.) pp420-427.

WILMER, Harry A.

1970 "Use of the Television Monologue with Adolescent Psychiatric ..tients." in American Journal of Psychiatry. 126 pp 1760-1766.